



MEDICAL DEVICES



PHARMACEUTICALS



CHEMICALS



FOOD & BEVERAGE



ELECTRONICS

## ***Table of Contents and List of Tables***

Copyright VENTURE PLANNING GROUP  
This material is confidential for use by our clients only  
and may not be reprinted or reproduced.

VPG Publications, Consulting, Clients ***www.VPGcorp.com*** VPG

Market Research Reports ***www.VPGMarketResearch.com***

Partner Reports ***www.LeadingMarketResearch.com***

**VENTURE PLANNING GROUP** 1271 Avenue of the Americas, Suite 4300 New York, NY 10020  
Phone + 1 212 564 2838 ***reports@vpgcorp.com***

# **European Infectious Disease Molecular Diagnostics Market**

## **Table of Contents**

### **I. Introduction**

### **II. Major Product Development Opportunities**

- A. Instrumentation
- B. Reagent Kits and Test Systems/panels
- C. Computers, Software and Automation
- D. Auxiliary Products

### **III. Design Criteria for Decentralized Testing Products**

### **IV. Alternative Market Penetration Strategies**

- A. Internal Development
- B. Collaborative Arrangements
- C. University Contracts
- D. Distribution Strategies For Decentralized Testing Markets

### **V. Potential Market Entry Barriers and Risks**

- A. Market Maturity
- B. Cost Containment
- C. Competition
- D. Technological Edge And Limitations
- E. Patent Protection
- F. Regulatory Constraints
- G. Decentralized Testing Market Challenges

### **VI. Worldwide Market and Technology Review**

- A. DNA Sequencing
  - 1. Introduction
  - 2. Sequencing Methods
  - 3. Autoradiography
  - 4. The Human Genome Project
  - 5. Sequencing Automation

## **Table of Contents** (continued)

6. Image Scanners
7. Fluorescent Detection
8. Gene Profiling
9. Gene Expression
10. Polymorphism Screening
11. Protein Interaction Networks

### **B. DNA and RNA Probe Technologies**

1. Basic Principles
2. Probe Preparation
3. The DNA Probe Test
4. Test Formats
5. Labeling Techniques
6. Amplification Methods

### **C. Detection Technologies**

1. Radioactive Methods
  - a. Overview
  - b. Major Isotopes
    - o P-32
    - o S-35
    - o H-3
    - o I-125
2. Non-Isotopic Methods
  - a. Enzymatic Labels
  - b. Chemical Labeling
    - o Indirect Chemical Labeling
    - o Direct Chemical Labeling
  - c. Fluorescence
  - d. Chemiluminescence
  - e. Electrical Conductivity

### **D. Molecular Diagnostic Instrumentation Review**

1. Abbott LCx
2. Beckman Coulter/Biomek FK
3. BD Viper System with XTR Technology
4. BD Innova
5. Becton Dickinson SDA

## **Table of Contents** (continued)

6. bioMerieux NucliSENS easyMAG
7. bioMerieux NucliSENS easyQ and MiniMAG
8. Bio-Rad GeneScope
9. Cepheid GeneXpert
10. Curetis Unyvero
11. GenMark Dx eSensor XT-8
12. Hologic/Gen-Probe Panther
13. Hologic/Gen-Probe Tigris/DTS
14. HTG Molecular Edge
15. Life Technologies QuantStudio Dx
16. Qiagen QIAasymphony RGQ
17. Roche Cobas Amplicor
18. Roche Cobas TaqMan 48
19. Roche Cobas TaqMan
20. Roche Cobas TaqMan AmpliPrep
21. Roche LightCycler 480
22. Roche Cobas 4800
23. Roche Cobas s 201
24. Siemens Versant
25. Tecan LS Series

### **E. Biochips: Genosensors, Microarrays, and Labs-on-the-Chip**

- Liquid Transportation and Mixing
- Separation
- Reaction
- Detection

### **F. Pharmacogenomics**

### **G. Major Applications, Microbiology/Infectious Diseases**

- a. Overview
- b. Major Infectious Diseases
  - ° AIDS: HIV/HIV-1/2/Combo, HIVAg/HIV NAT, Western Blot, HTLV-I/II
  - ° Adenovirus
  - ° Aeromonas
  - ° Anthrax/Bacillus Anthracis

## **Table of Contents** (continued)

- Arboviruses
- Babesiosis
- Bacillary Epithelioid Angiomatosis (BEA)  
and Other Bartonella (Rochalimaea)
- Blastocystis Hominis
- Brucella
- Campylobacter
- Candida
- Chagas Disease
- Chancroid
- Chlamydia
- Clostridium Difficile
- Coronaviruses
- Coxsackieviruses
- Creutzfeldt-Jakob's Disease
- Cryptosporidium Parvum
- Cyclospora Cayetanensis
- Cytomegalovirus
- Ebola Virus
- E. Coli
- EchoVirus
- Encephalitis
- Enteroviruses
- Epstein-Barr Virus
- Giardia Lamblia
- Gonorrhea
- Granuloma Inguinale
- Hantavirus
- Helicobacter Pylori
- Hepatitis: HAV NAT, HBV NAT, HBs Ag, HCV, HCV NAT,  
Anti-HBc, Anti-HBs, Anti-HAV, Hepatitis Delta, HBc Ag,  
HBe Ag, ALT/SGPT
- Herpes Simplex Virus
- Human Herpes Virus-6 (HHV-6)
- Influenza Viruses
- Legionella
- Lyme Disease
- Lymphogranuloma Venereum (LGV)
- Malaria
- Measles (Rubeola)
- Meningitis

## **Table of Contents** (continued)

- Microsporidium
- Mononucleosis
- Mumps
- Mycoplasma
- Papillomaviruses
- Parvovirus B19
- Pneumonia
- Polyomaviruses
- Pseudomonas Aeruginosa
- Rabies
- Respiratory Syncytial Virus (RSV)
- Rhinoviruses
- Rotavirus
- Rubella
- Salmonellosis
- Septicemia
- Shigellosis
- Staphylococcus Aureus
- Streptococci
- Syphilis
- Toxoplasmosis
- Trichomonas Vaginalis
- Tuberculosis
- Vibrio
- West Nile Virus
- Yersinia

### H. Competing/complementing

1. Monoclonal Antibodies/Immunoassays
2. RNA Probes
3. Two-Dimensional Electrophoresis
4. Flow Cytometry

## **Table of Contents** (continued)

### **VII. France Molecular Diagnostics Market**

- A. Executive Summary
- B. Business Environment
- C. Market Structure
- D. Market Size, Test Volume and Sales Forecasts,  
Major Supplier Sales and Market Shares

### **VIII. Germany Molecular Diagnostics Market**

- A. Executive Summary
- B. Business Environment
- C. Market Structure
- D. Market Size, Test Volume and Sales Forecasts,  
Major Supplier Sales and Market Shares

### **IX. Italy Molecular Diagnostics Market**

- A. Executive Summary
- B. Business Environment
- C. Market Structure
- D. Market Size, Test Volume and Sales Forecasts,  
Major Supplier Sales and Market Shares

### **X. Spain Molecular Diagnostics Market**

- A. Executive Summary
- B. Business Environment
- C. Market Structure
- D. Market Size, Test Volume and Sales Forecasts,  
Major Supplier Sales and Market Shares

### **XI. U.K. Molecular Diagnostics Market**

- A. Executive Summary
- B. Business Environment
- C. Market Structure
- D. Market Size, Test Volume and Sales Forecasts,  
Major Supplier Sales and Market Shares

## **Table of Contents** (continued)

### **XII. Competitive Assessments**

- Abbott
- Affymetrix
- Agilent Technologies
- Applied Gene Technologies
- Arca Biopharma
- Beckman Coulter/Danaher
- Becton Dickinson
- Biokit
- bioMerieux
- Bio-Rad
- Biotest
- Cepheid
- Decode Genetics
- Diadexus
- Eiken Chemical
- Elitech Group
- Enzo Biochem
- Exact Sciences
- Fujirebio
- Grifols
- Hologic
- Illumina
- LabCorp
- Leica Biosystems
- Li-Cor Biosciences
- Myriad Genetics
- Ortho-Clinical Diagnostics
- PerkinElmer
- Proteome Sciences
- Qiagen
- Roche
- Scienion
- Sequenom
- Shimadzu
- Siemens Healthineers
- Sierra Molecular
- Takara Bio
- Tecan Group
- Thermo Fisher

### **XIII. Appendix:** Major Universities and Research Centers Developing Molecular Diagnostic Technologies



## **List of Tables**

Major Companies Developing or Marketing AIDS Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Adenovirus Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Bartonella Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Campylobacter Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Candida Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Chlamydia Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Clostridium Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Coronavirus Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Cryptosporidium Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing CMV Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Echovirus Molecular Diagnostic and Other Direct Identification Tests

**List of Tables** (continued)

Major Companies Developing or Marketing Enterovirus Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing EBV Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Giardia Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Gonorrhea Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Hantavirus Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Helicobacter Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Hepatitis Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Herpes Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Influenza Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Legionella Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Lyme Disease Molecular Diagnostic and Other Direct Identification Tests

**List of Tables** (continued)

Major Companies Developing or Marketing Measles  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing Meningitis  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing Mononucleosis  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing Mumps  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing Mycoplasma  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing Pneumonia  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing RSV  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing Rotavirus  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing Rubella  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing Salmonella  
Molecular Diagnostic and Other Direct  
Identification Tests

## **List of Tables** (continued)

Major Companies Developing or Marketing Septicemia  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing Shigella  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing Streptococci  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing Syphilis  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing Toxoplasmosis  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing Trichomonas  
Molecular Diagnostic and Other Direct  
Identification Tests

Major Companies Developing or Marketing Tuberculosis  
Molecular Diagnostic and Other Direct  
Identification Tests

France  
Molecular Diagnostics Test Volume And Sales  
By Major Application 2014-2019

France  
Laboratories Performing DNA Sequencing  
By Market Segment 2014

France  
Molecular Diagnostics Market  
Potential Laboratory Universe by Market Segment 2014

**List of Tables** (continued)

France  
Molecular Diagnostics Test Volume  
By Major Application 2014-2019

France  
Major Infectious Disease Test Volume by Assay 2014-2019

France  
Major Infectious Disease Test Volume by Method 2014

France  
Molecular Diagnostics Market  
By Major Application 2014-2019

France  
Molecular Diagnostics Market  
Estimated Sales And Market Shares of Major Suppliers 2014

France  
Major Infectious Disease Diagnostics Market by Assay 2014-2019

France  
AIDS Testing Market  
Estimated Sales by Major Supplier 2014

France  
Adenovirus Testing Market  
Estimated Sales by Major Supplier 2014

France  
Chlamydia Testing Market  
Estimated Sales by Major Supplier 2014

France  
CMV Testing Market  
Estimated Sales by Major Supplier 2014

France  
Gonorrhea Testing Market  
Estimated Sales by Major Supplier 2014

**List of Tables** (continued)

France  
Hepatitis Testing Market  
Estimated Sales by Major Supplier 2014

France  
Hepatitis C Testing Market  
Estimated Sales by Major Supplier 2014

France  
HIV/Hepatitis Blood Screening NAT Market  
Reagent Sales by Major Supplier 2014

France  
Herpes Testing Market  
Estimated Sales by Major Supplier 2014

France  
Influenza Testing Market  
Estimated Sales by Major Supplier 2014

France  
Meningitis Testing Market  
Estimated Sales by Major Supplier 2014

France  
Mycoplasma Testing Market  
Estimated Sales by Major Supplier 2014

France  
RSV Testing Market  
Estimated Sales by Major Supplier 2014

France  
Shigella Testing Market  
Estimated Sales by Major Supplier 2014

Germany  
Molecular Diagnostics Test Volume And Sales  
By Major Application 2014-2019

Germany  
Laboratories Performing DNA Sequencing  
By Market Segment 2014

## **List of Tables** (continued)

Germany  
Molecular Diagnostics Market  
Potential Laboratory Universe by Market Segment 2014

Germany  
Molecular Diagnostics Test Volume  
By Major Application 2014-2019

Germany  
Major Infectious Disease Test Volume by Assay 2014-2019

Germany  
Major Infectious Disease Test Volume by Method 2014

Germany  
Molecular Diagnostics Market  
By Major Application 2014-2019

Germany  
Molecular Diagnostics Market  
Estimated Sales And Market Shares of Major Suppliers 2014

Germany  
Major Infectious Disease Diagnostics Market by Assay 2014-2019

Germany  
AIDS Testing Market  
Estimated Sales by Major Supplier 2014

Germany  
CMV Testing Market  
Estimated Sales by Major Supplier 2014

Germany  
EBV Testing Market  
Estimated Sales by Major Supplier 2014

Germany  
Gonorrhea Testing Market  
Estimated Sales by Major Supplier 2014

**List of Tables** (continued)

Germany  
Hepatitis Testing Market  
Estimated Sales by Major Supplier 2014

Germany  
Hepatitis C Testing Market  
Estimated Sales by Major Supplier 2014

Germany  
HIV/Hepatitis Blood Screening NAT Market  
Reagent Sales by Major Supplier 2014

Germany  
Herpes Testing Market  
Estimated Sales by Major Supplier 2014

Germany  
Influenza Testing Market  
Estimated Sales by Major Supplier 2014

Germany  
Meningitis Testing Market  
Estimated Sales by Major Supplier 2014

Germany  
Mycoplasma Testing Market  
Estimated Sales by Major Supplier 2014

Germany  
Pneumonia Testing Market  
Estimated Sales by Major Supplier 2014

Germany  
RSV Testing Market  
Estimated Sales by Major Supplier 2014

Germany  
Rotavirus Testing Market  
Estimated Sales by Major Supplier 2014



**List of Tables** (continued)

Italy  
Molecular Diagnostics Test Volume And Sales  
By Major Application 2014-2019

Italy  
Laboratories Performing DNA Sequencing  
By Market Segment 2014

Italy  
Molecular Diagnostics Market  
Potential Laboratory Universe by Market Segment 2014

Italy  
Molecular Diagnostics Test Volume  
By Major Application 2014-2019

Italy  
Major Infectious Disease Test Volume by Assay 2014-2019

Italy  
Major Infectious Disease Test Volume by Method 2014

Italy  
Molecular Diagnostics Market  
By Major Application 2014-2019

Italy  
Molecular Diagnostics Market  
Estimated Sales And Market Shares of Major Suppliers 2014

Italy  
Major Infectious Disease Diagnostics Market by Assay 2014-2019

Italy  
AIDS Testing Market  
Estimated Sales by Major Supplier 2014

Italy  
CMV Testing Market  
Estimated Sales by Major Supplier 2014

**List of Tables** (continued)

Italy  
Gonorrhea Testing Market  
Estimated Sales by Major Supplier 2014

Italy  
Hepatitis Testing Market  
Estimated Sales by Major Supplier 2014

Italy  
Hepatitis C Testing Market  
Estimated Sales by Major Supplier 2014

Italy  
HIV/Hepatitis Blood Screening NAT Market  
Reagent Sales by Major Supplier 2014

Italy  
Herpes Testing Market  
Estimated Sales by Major Supplier 2014

Italy  
Influenza Testing Market  
Estimated Sales by Major Supplier 2014

Italy  
Meningitis Testing Market  
Estimated Sales by Major Supplier 2014

Italy  
Mycoplasma Testing Market  
Estimated Sales by Major Supplier 2014

Italy  
RSV Testing Market  
Estimated Sales by Major Supplier 2014

Spain  
Molecular Diagnostics Test Volume And Sales  
By Major Application 2014-2019

**List of Tables** (continued)

Spain  
Laboratories Performing DNA Sequencing  
By Market Segment 2014

Spain  
Molecular Diagnostics Market  
Potential Laboratory Universe by Market Segment 2014

Spain  
Molecular Diagnostics Test Volume  
By Major Application 2014-2019

Spain  
Major Infectious Disease Test Volume by Assay 2014-2019

Spain  
Major Infectious Disease Test Volume by Method 2014

Spain  
Molecular Diagnostics Market  
By Major Application 2014-2019

Spain  
Molecular Diagnostics Market  
Estimated Sales And Market Shares of Major Suppliers 2014

Spain  
Major Infectious Disease Diagnostics Market by Assay 2014-2019

Spain  
AIDS Testing Market  
Estimated Sales by Major Supplier 2014

Spain  
Chlamydia Testing Market  
Estimated Sales by Major Supplier 2014

Spain  
CMV Testing Market  
Estimated Sales by Major Supplier 2014

**List of Tables** (continued)

Spain  
Gonorrhea Testing Market  
Estimated Sales by Major Supplier 2014

Spain  
Hepatitis Testing Market  
Estimated Sales by Major Supplier 2014

Spain  
Hepatitis C Testing Market  
Estimated Sales by Major Supplier 2014

Spain  
HIV/Hepatitis Blood Screening NAT Market  
Reagent Sales by Major Supplier 2014

Spain  
Herpes Testing Market  
Estimated Sales by Major Supplier 2014

Spain  
Influenza Testing Market  
Estimated Sales by Major Supplier 2014

Spain  
Meningitis Testing Market  
Estimated Sales by Major Supplier 2014

Spain  
Mycoplasma Testing Market  
Estimated Sales by Major Supplier 2014

U.K.  
Molecular Diagnostics Test Volume And Sales  
By Major Application 2014-2019

U.K.  
Laboratories Performing DNA Sequencing  
By Market Segment 2014

**List of Tables** (continued)

U.K.  
Molecular Diagnostics Market  
Potential Laboratory Universe by Market Segment 2014

U.K.  
Molecular Diagnostics Test Volume  
By Major Application 2014-2019

U.K.  
Major Infectious Disease Test Volume by Assay 2014-2019

U.K.  
Major Infectious Disease Test Volume by Method 2014

U.K.  
Molecular Diagnostics Market  
By Major Application 2014-2019

U.K.  
Molecular Diagnostics Market  
Estimated Sales And Market Shares of Major Suppliers 2014

U.K.  
Major Infectious Disease Diagnostics Market by Assay 2014-2019

U.K.  
AIDS Testing Market  
Estimated Sales by Major Supplier 2014

U.K.  
Gonorrhea Testing Market  
Estimated Sales by Major Supplier 2014

U.K.  
Hepatitis Testing Market  
Estimated Sales by Major Supplier 2014

U.K.  
Hepatitis C Testing Market  
Estimated Sales by Major Supplier 2014

**List of Tables** (continued)

U.K.  
HIV/Hepatitis Blood Screening NAT Market  
Reagent Sales by Major Supplier 2014

U.K.  
Influenza Testing Market  
Estimated Sales by Major Supplier 2014

U.K.  
Mycoplasma Testing Market  
Estimated Sales by Major Supplier 2014

U.K.  
Pneumonia Testing Market  
Estimated Sales by Major Supplier 2014

U.K.  
Shigella Testing Market  
Estimated Sales by Major Supplier 2014